

High speed MEMS mirrors and other resonant deflectors are often characterized by sinusoidal scan rates, compared to constant rotational velocity scanners such as rotating polygons. Resonant deflectors may be resonant in one, two, or three axes. [An idealized bi-resonant, bi-sinusoidal scan pattern is shown in Figure 26.] In certain instances, the scan pattern follows a bi-resonant, bi-sinusoidal scan path characterized as a Lissajous pattern. ~~Rectilinear matrix 2602 is shown overlaid with bi-resonant scan path 2604. In this case,~~ In such cases the intersections between the vertical and horizontal lines of [the] a rectilinear matrix, represent representing idealized pixel positions, may be overlaid with the bi-resonant, bi-sinusoidal scan path, while bi-resonant scan path 2704 represents representing the actual path taken by the scanned spot. As may be seen, Since the actual scan path doesn't align perfectly with all the rectilinear pixel positions. These positions, those values may therefore be determined by interpolating. Such applications of a bi-resonant, bi-sinusoidal scan path to rectilinearly arranged pixel positions are discussed more fully in the U.S. Patent Application entitled APPARATUS AND METHOD FOR BI-DIRECTIONALLY SWEEPING AN IMAGE BEAM IN THE VERTICAL DIMENSION AND RELATED APPARATI AND METHODS, by Margaret Brown, Marc Freeman, and John R. Lewis, application number 10/441,916, applied for May 19, 2003, commonly assigned herewith and hereby incorporated by reference. This application discloses methods for selecting bi-resonant frequencies as well as methods for maximizing the image quality.

On page 56 of the specification, please delete the first paragraph starting on line 1:

~~Methods for selecting bi-resonant frequencies as well as methods for maximizing the image quality are discussed analogously in the U.S. Patent Application entitled IMAGE QUALITY CONSIDERATIONS IN BI SINUSOIDALLY SCANNED RETINAL SCANNING DISPLAY SYSTEMS, by Margaret Brown, Marc Freeman, and John R. Lewis, application number 10/441,916, applied for May 19, 2003, commonly assigned herewith and hereby incorporated by reference.~~